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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/509,626	03/30/2000	THOMAS MULLER	3926.004	7855

7590 07/09/2004  
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TAMPA, FL 33634-7356

EXAMINER
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YUN, EUGENE

ART UNIT	PAPER NUMBER
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2682

DATE MAILED: 07/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/509,626

Applicant(s)

MULLER, THOMAS

Examiner

Eugene Yun

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/6/2004 has been entered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-3, 8 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Lazaris-Brunner et al. (US 5,956,620).

Referring to Claim 1, Lazaris-Brunner teaches a process for simultaneously receiving different radio standards, comprising:

- analog signal processing 30 and 28 (fig. 3) and subsequently superposing 24 (fig. 3) multiple various modulation types of radio standards in a single radio receiver (see col. 6, lines 62-66); and
- carrying out a separation of the same by a subsequent digital signal processing 20 (fig. 3).

Referring to Claim 10, Lazaris-Brunner teaches a process for simultaneously receiving different radio standards in a single radio receiver, comprising:

- analog signal processing 30 and 28 (fig. 3) of multiple various modulation types of radio standards in a single radio receiver (see col. 6, lines 62-66), superposing said multiple various modulation types of radio standards onto a common intermediate frequency 24 (fig. 3), mixing the product of said superposing 16 (fig. 3); and
- subsequently carrying out a separation of the mixed product by digital signal processing 20 (fig. 3).

Referring to Claim 2, Lazaris-Brunner also teaches the superposing carried out in two frequency ranges (see col. 9, lines 1-11).

Referring to Claim 3, Lazaris-Brunner also teaches the superposing of high-frequency signals 24 (fig. 3) carried out prior to the first mixing step 16 (fig. 3).

Referring to Claim 8, Lazaris-Brunner also teaches an A/D conversion carried out prior to demodulation 20 (fig. 3).

4. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lazaris-Brunner in view of Ostman (US 6,069,923).

Referring to Claim 4, Lazaris-Brunner does not teach the sum of the output of two narrow band oscillators is employed local oscillator for the first mixing step. Ostman teaches the sum of the output of two narrow band oscillators is employed local oscillator for the first mixing step (see 208a and 208b of fig. 2a and 308 of fig. 3a). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Ostman to said process of Lazaris-Brunner in order to better minimize the parts of a receiver when receiving signals of different modulation frequencies.

Referring to Claim 5, Ostman also teaches that for each modulation type, one filter 204a and 204b (fig. 2a) and amplifier 202a and 202b (fig. 2a) is employed.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lazaris-Brunner in view of Krasner (WO 97/14056).

Referring to Claim 6, Lazaris-Brunner does not teach that for all modulation types, a special HF-filter with level accommodation and band selection is employed. Krasner teaches that for all modulation types, a special HF-filter 3 and 4 (fig. 1A) with level accommodation and band selection is employed (see pg. 5, lines 7-8). Therefore,

it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Krasner to said process of Lazaris-Brunner in order to better minimize the parts of a receiver when receiving signals of different modulation frequencies.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lazaris-Brunner and Krasner in view of Kim (US 5,963,592).

Krasner teaches a superposing of a CDMA-encoded signal (GPS signal in fig. 1A is an example of a CDMA-encoded signal). The combination of Lazaris-Brunner and Krasner does not teach the superposing of a OFDM-encoded signal. Kim teaches the superposing of a OFDM-encoded signal (see col. 1, lines 47-50). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Kim to said process of Krasner in order to better use one circuitry for two different radio standards.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lazaris-Brunner and O (US 6,061,338).

Referring to Claim 9, Lazaris-Brunner teaches a process for simultaneously receiving different radio standards, comprising:

-receiving 12 (fig. 3) and superposing 24 (fig. 3) multiple various modulation types of radio standards in a single radio receiver (see col. 6, lines 62-66) following an analog signal processing 30 and 28 (fig. 3); and

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-carrying out a separation of the same by a subsequent digital signal processing 20 (fig. 3).

Lazaris-Brunner does not teach one of the various modulation types including a CDMA encoded signal. O teaches one of the various modulation types including a CDMA encoded signal (see col. 1, lines 27-31). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of O to said process of Lazaris-Brunner in order to expand the capabilities of the multi-mode receiver.


### ***Response to Arguments***

8. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eugene Yun whose telephone number is (703) 305-2689. The examiner can normally be reached on 8:30am-5:30pm Alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (703) 308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Eugene Yun  
Examiner  
Art Unit 2682

EY

  
VIVIAN CHIN  
SUPERVISORY PATENT EXAMINER  
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6/25/04